

Section 1. Registration Information

Source Identification

| | |
|-------------------------|-----------------------------------|
| Facility Name: | TPC Group- Port Neches Operations |
| Parent Company #1 Name: | |
| Parent Company #2 Name: | |

Submission and Acceptance

| | |
|---|-------------------------------------|
| Submission Type: | Re-submission |
| Subsequent RMP Submission Reason: | 5-year update (40 CFR 68.190(b)(1)) |
| Description: | Port Neches Operations |
| Receipt Date: | 19-Mar-2018 |
| Postmark Date: | 19-Mar-2018 |
| Next Due Date: | 19-Mar-2023 |
| Completeness Check Date: | 06-Sep-2019 |
| Complete RMP: | Yes |
| De-Registration / Closed Reason: | |
| De-Registration / Closed Reason Other Text: | |
| De-Registered / Closed Date: | |
| De-Registered / Closed Effective Date: | |
| Certification Received: | Yes |

Facility Identification

| | |
|--------------------------------|----------------|
| EPA Facility Identifier: | 1000 0011 5314 |
| Other EPA Systems Facility ID: | TX4000007013 |
| Facility Registry System ID: | |

Dun and Bradstreet Numbers (DUNS)

| | |
|-------------------------|-----------|
| Facility DUNS: | 102647005 |
| Parent Company #1 DUNS: | |
| Parent Company #2 DUNS: | |

Facility Location Address

| | |
|-----------|---------------|
| Street 1: | 2102 SPUR 136 |
| Street 2: | |
| City: | PORT NECHES |
| State: | TEXAS |
| ZIP: | 77651 |
| ZIP4: | |
| County: | JEFFERSON |

Facility Latitude and Longitude

| | |
|----------------------------------|------------------------------|
| Latitude (decimal): | 29.978056 |
| Longitude (decimal): | -093.939167 |
| Lat/Long Method: | Interpolation - Photo |
| Lat/Long Description: | Plant Entrance (General) |
| Horizontal Accuracy Measure: | 25 |
| Horizontal Reference Datum Name: | North American Datum of 1983 |
| Source Map Scale Number: | 24000 |

Owner or Operator

| | |
|-----------------|---------------------------|
| Operator Name: | Texas Petrochemicals, LLC |
| Operator Phone: | (409) 724-4857 |

Mailing Address

| | |
|-------------------------------------|---------------|
| Operator Street 1: | 2102 SPUR 136 |
| Operator Street 2: | |
| Operator City: | PORT NECHES |
| Operator State: | TEXAS |
| Operator ZIP: | 77651 |
| Operator ZIP4: | |
| Operator Foreign State or Province: | |
| Operator Foreign ZIP: | |
| Operator Foreign Country: | |

Name and title of person or position responsible for Part 68 (RMP) Implementation

| | |
|----------------------------------|---------------|
| RMP Name of Person: | |
| RMP Title of Person or Position: | Plant Manager |
| RMP E-mail Address: | |

Emergency Contact

| | |
|-----------------------------------|-------------------|
| Emergency Contact Name: | Christina Clifton |
| Emergency Contact Title: | EHSS Manager |
| Emergency Contact Phone: | |
| Emergency Contact 24-Hour Phone: | |
| Emergency Contact Ext. or PIN: | |
| Emergency Contact E-mail Address: | |

Redacted

Other Points of Contact

| | |
|--|--|
| Facility or Parent Company E-mail Address: | |
| Facility Public Contact Phone: | |
| Facility or Parent Company WWW Homepage Address: | |

Local Emergency Planning Committee

| | |
|-------|-----------------------|
| LEPC: | Jefferson County LEPC |
|-------|-----------------------|

Full Time Equivalent Employees

| | |
|--|-----|
| Number of Full Time Employees (FTE) on Site: | 177 |
| FTE Claimed as CBI: | |

Covered By

| | |
|--------------|-----|
| OSHA PSM : | Yes |
| EPCRA 302 : | Yes |
| CAA Title V: | Yes |

Air Operating Permit ID:

0-01327

OSHA Ranking

OSHA Star or Merit Ranking:

Last Safety Inspection

Last Safety Inspection (By an External Agency)
Date:

15-Dec-2017

Last Safety Inspection Performed By an External
Agency:

US Coast Guard

Predictive Filing

Did this RMP involve predictive filing?:

Preparer Information

Preparer Name:

Preparer Phone:

Preparer Street 1:

Preparer Street 2:

Preparer City:

Preparer State:

Preparer ZIP:

Preparer ZIP4:

Preparer Foreign State:

Preparer Foreign Country:

Preparer Foreign ZIP:

Confidential Business Information (CBI)

CBI Claimed:

Substantiation Provided:

Unsanitized RMP Provided:

Reportable Accidents

Reportable Accidents:

See Section 6. Accident History below to determine
if there were any accidents reported for this RMP.

Process Chemicals

Process ID:

1000086068

Description:

Butadiene Plant

Process Chemical ID:

1000107422

Program Level:

Program Level 3 process

Chemical Name:

Flammable Mixture

CAS Number:

00-11-11

Quantity (lbs):

120000000

CBI Claimed:

Flammable/Toxic:

Flammable

Flammable Mixture Chemical Components

| | |
|--------------------------------|--|
| Flammable Mixture Chemical ID: | 1000093860 |
| Chemical Name: | Ethane |
| CAS Number: | 74-84-0 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093869 |
| Chemical Name: | 1-Butene |
| CAS Number: | 106-98-9 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093857 |
| Chemical Name: | Propylene [1-Propene] |
| CAS Number: | 115-07-1 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093867 |
| Chemical Name: | 2-Methylpropene [1-Propene, 2-methyl-] |
| CAS Number: | 115-11-7 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093864 |
| Chemical Name: | 2-Methyl-1-butene |
| CAS Number: | 563-46-2 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093858 |
| Chemical Name: | Vinyl acetylene [1-Buten-3-yne] |
| CAS Number: | 689-97-4 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093856 |
| Chemical Name: | Propane |
| CAS Number: | 74-98-6 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093859 |
| Chemical Name: | Propyne [1-Propyne] |
| CAS Number: | 74-99-7 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093870 |
| Chemical Name: | 2-Butene-trans [2-Butene, (E)] |
| CAS Number: | 624-64-6 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093873 |
| Chemical Name: | Isobutane [Propane, 2-methyl] |
| CAS Number: | 75-28-5 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093865 |
| Chemical Name: | 3-Methyl-1-butene |
| CAS Number: | 563-45-1 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093861 |

| | |
|--------------------------------|---------------------------------|
| Chemical Name: | 2-Butene-cis |
| CAS Number: | 590-18-1 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093871 |
| Chemical Name: | Butane |
| CAS Number: | 106-97-8 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093868 |
| Chemical Name: | 1,3-Butadiene |
| CAS Number: | 106-99-0 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093872 |
| Chemical Name: | Ethyl acetylene [1-Butyne] |
| CAS Number: | 107-00-6 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093862 |
| Chemical Name: | Hydrogen |
| CAS Number: | 1333-74-0 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093854 |
| Chemical Name: | Isopentane [Butane, 2-methyl-] |
| CAS Number: | 78-78-4 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093863 |
| Chemical Name: | Methane |
| CAS Number: | 74-82-8 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093855 |
| Chemical Name: | Pentane |
| CAS Number: | 109-66-0 |
| Flammable/Toxic: | Flammable |
| Flammable Mixture Chemical ID: | 1000093866 |
| Chemical Name: | Methyl ether [Methane, oxybis-] |
| CAS Number: | 115-10-6 |
| Flammable/Toxic: | Flammable |
| Process ID: | 1000086069 |
| Description: | SP&W |
| Process Chemical ID: | 1000107423 |
| Program Level: | Program Level 3 process |
| Chemical Name: | Chlorine |
| CAS Number: | 7782-50-5 |
| Quantity (lbs): | 24000 |
| CBI Claimed: | |
| Flammable/Toxic: | Toxic |

Process NAICS

| | |
|--------------------|-----------------------------|
| Process ID: | 1000086068 |
| Process NAICS ID: | 1000087271 |
| Program Level: | Program Level 3 process |
| NAICS Code: | 32511 |
| NAICS Description: | Petrochemical Manufacturing |

| | |
|--------------------|-----------------------------|
| Process ID: | 1000086069 |
| Process NAICS ID: | 1000087272 |
| Program Level: | Program Level 3 process |
| NAICS Code: | 32511 |
| NAICS Description: | Petrochemical Manufacturing |

Redacted

Redacted

Redacted

Redacted

Section 6. Accident History

No records found.

Section 7. Program Level 3

Description

The Butadiene Process is made up of five units as well as a Receiving, Storage, and Transfer (RS&T) process area. The Acetylene Hydrogenation Unit (AHU) removes acetylenes from the crude butadiene feed, the Butadiene Purification Unit purifies butadiene products and byproducts, the Sponge Oil Unit recovers C4s from the Vent Gas System and depentanizer bottoms streams, the Flare and Vent Gas Systems collect off-gas for recovery and/or combustion in an elevated flare, and the Waste Water Stripper Unit removes process chemicals from the process water. Several HAZOPs were conducted in order to cover all of the equipment in this process. The process controls, mitigation, monitors and detection systems noted in the PHA section apply to all units except as follows: Interlocks are used in the Butadiene Purification Unit, the AHU, the Flare and Vent Gas Systems, and the W3F54 Wastewater Stripper. Automatic shut-offs are in the AHU, Butadiene Purification Unit, and Flare and Vent Gas Systems. The deluge system is only used on all pumps and accumulators in the BD portion of the process and on the accumulator in the vent recovery system. The Receiving, Storage and Transfer (RS&T) process area includes the tankage, loading and unloading of all C4 Plant feed chemicals, intermediates and products including two docks for loading and unloading from barges and ships. This area also includes storage of finished product for the O&O Plant F5 Unit.

Program Level 3 Prevention Program Chemicals

| | |
|---------------------------------|-------------------|
| Prevention Program Chemical ID: | 1000090323 |
| Chemical Name: | Flammable Mixture |
| Flammable/Toxic: | Flammable |
| CAS Number: | 00-11-11 |

| | |
|--------------------------------|-----------------|
| Process ID: | 1000086068 |
| Description: | Butadiene Plant |
| Prevention Program Level 3 ID: | 1000072701 |
| NAICS Code: | 32511 |

Safety Information

| | |
|---|-------------|
| Safety Review Date (The date on which the safety information was last reviewed or revised): | 05-Feb-2018 |
|---|-------------|

Process Hazard Analysis (PHA)

| | |
|---|-------------|
| PHA Completion Date (Date of last PHA or PHA update): | 20-Dec-2017 |
|---|-------------|

The Technique Used

| | |
|--|-----|
| What If: | |
| Checklist: | |
| What If/Checklist: | |
| HAZOP: | Yes |
| Failure Mode and Effects Analysis: | |
| Fault Tree Analysis: | |
| Other Technique Used: | |
| PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update): | |

Major Hazards Identified

| | |
|--|-----|
| Toxic Release: | |
| Fire: | Yes |
| Explosion: | Yes |
| Runaway Reaction: | Yes |
| Polymerization: | Yes |
| Overpressurization: | Yes |
| Corrosion: | |
| Overfilling: | Yes |
| Contamination: | Yes |
| Equipment Failure: | Yes |
| Loss of Cooling, Heating, Electricity, Instrument Air: | Yes |
| Earthquake: | |
| Floods (Flood Plain): | |
| Tornado: | |
| Hurricanes: | |
| Other Major Hazard Identified: | |

Process Controls in Use

| | |
|-------------------------------|-----|
| Vents: | Yes |
| Relief Valves: | Yes |
| Check Valves: | Yes |
| Scrubbers: | Yes |
| Flares: | Yes |
| Manual Shutoffs: | Yes |
| Automatic Shutoffs: | Yes |
| Interlocks: | |
| Alarms and Procedures: | Yes |
| Keyed Bypass: | |
| Emergency Air Supply: | Yes |
| Emergency Power: | Yes |
| Backup Pump: | Yes |
| Grounding Equipment: | Yes |
| Inhibitor Addition: | Yes |
| Rupture Disks: | |
| Excess Flow Device: | |
| Quench System: | |
| Purge System: | Yes |
| None: | |
| Other Process Control in Use: | |

Mitigation Systems in Use

| | |
|---------------------------------|-----|
| Sprinkler System: | Yes |
| Dikes: | Yes |
| Fire Walls: | |
| Blast Walls: | |
| Deluge System: | Yes |
| Water Curtain: | |
| Enclosure: | |
| Neutralization: | |
| None: | |
| Other Mitigation System in Use: | |

Monitoring/Detection Systems in Use

Process Area Detectors: Yes

Perimeter Monitors: Yes

None:

Other Monitoring/Detection System in Use:

Changes Since Last PHA Update

Reduction in Chemical Inventory:

Increase in Chemical Inventory:

Change Process Parameters:

Installation of Process Controls:

Installation of Process Detection Systems:

Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

None Recommended: Yes

None:

Other Changes Since Last PHA or PHA Update:

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures): 04-Jan-2018

Training

Training Revision Date (The date of the most recent review or revision of training programs): 24-Oct-2017

The Type of Training Provided

Classroom: Yes

On the Job: Yes

Other Training:

The Type of Competency Testing Used

Written Tests: Yes

Oral Tests:

Demonstration:

Observation:

Other Type of Competency Testing Used:

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures): 31-Jul-2016

Equipment Inspection Date (The date of the most recent equipment inspection or test): 20-Feb-2018

Equipment Tested (Equipment most recently inspected or tested):

Piping circuit (visual)

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):

05-Feb-2018

Change Management Revision Date (The date of the most recent review or revision of management of change procedures):

12-Mar-2015

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):

26-Jan-2018

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit):

13-Apr-2015

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):

31-Oct-2018

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):

02-Feb-2018

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

16-Feb-2018

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):

31-Aug-2016

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures):

15-Nov-2017

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):

31-Oct-2016

Contractor Safety Performance Evaluation Date
(The date of the most recent review or revision of
contractor safety performance):

25-Jan-2018

Confidential Business Information

CBI Claimed:

Description

Steam, Power & Water (SP&W) -this process includes the chlorine storage and injection unit which provides treatment of both raw water and cooling water for the prevention of biological growth. Process area detectors and alarms are in use for chlorine only. The last PHA noted is for the Cooling Tower Chemical Injection.

Program Level 3 Prevention Program Chemicals

| | |
|---------------------------------|------------|
| Prevention Program Chemical ID: | 1000090324 |
| Chemical Name: | Chlorine |
| Flammable/Toxic: | Toxic |
| CAS Number: | 7782-50-5 |

| | |
|--------------------------------|------------|
| Process ID: | 1000086069 |
| Description: | SP&W |
| Prevention Program Level 3 ID: | 1000072702 |
| NAICS Code: | 32511 |

Safety Information

| | |
|---|-------------|
| Safety Review Date (The date on which the safety information was last reviewed or revised): | 21-Jan-2018 |
|---|-------------|

Process Hazard Analysis (PHA)

| | |
|---|-------------|
| PHA Completion Date (Date of last PHA or PHA update): | 21-Sep-2016 |
|---|-------------|

The Technique Used

| | |
|--|-----|
| What If: | |
| Checklist: | |
| What If/Checklist: | |
| HAZOP: | Yes |
| Failure Mode and Effects Analysis: | |
| Fault Tree Analysis: | |
| Other Technique Used: | |
| PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update): | |

Major Hazards Identified

| | |
|---------------------|-----|
| Toxic Release: | Yes |
| Fire: | Yes |
| Explosion: | |
| Runaway Reaction: | |
| Polymerization: | |
| Overpressurization: | |
| Corrosion: | Yes |
| Overfilling: | Yes |
| Contamination: | Yes |
| Equipment Failure: | Yes |

Loss of Cooling, Heating, Electricity, Instrument Air: Yes
Earthquake:
Floods (Flood Plain):
Tornado:
Hurricanes:
Other Major Hazard Identified:

Process Controls in Use

Vents: Yes
Relief Valves: Yes
Check Valves: Yes
Scrubbers:
Flares:
Manual Shutoffs: Yes
Automatic Shutoffs:
Interlocks:
Alarms and Procedures: Yes
Keyed Bypass:
Emergency Air Supply: Yes
Emergency Power:
Backup Pump: Yes
Grounding Equipment: Yes
Inhibitor Addition:
Rupture Disks:
Excess Flow Device:
Quench System:
Purge System:
None:
Other Process Control in Use:

Mitigation Systems in Use

Sprinkler System:
Dikes: Yes
Fire Walls:
Blast Walls:
Deluge System: Yes
Water Curtain:
Enclosure:
Neutralization:
None:
Other Mitigation System in Use:

Monitoring/Detection Systems in Use

Process Area Detectors: Yes
Perimeter Monitors: Yes
None:
Other Monitoring/Detection System in Use:

Changes Since Last PHA Update

Reduction in Chemical Inventory:
Increase in Chemical Inventory:

Change Process Parameters:

Installation of Process Controls:

Installation of Process Detection Systems:

Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

None Recommended:

None:

Yes

Other Changes Since Last PHA or PHA Update:

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures): 04-Jan-2018

Training

Training Revision Date (The date of the most recent review or revision of training programs): 24-Oct-2017

The Type of Training Provided

Classroom: Yes

On the Job: Yes

Other Training:

The Type of Competency Testing Used

Written Tests:

Oral Tests: Yes

Demonstration: Yes

Observation: Yes

Other Type of Competency Testing Used:

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures): 31-Jul-2016

Equipment Inspection Date (The date of the most recent equipment inspection or test): 04-Jan-2018

Equipment Tested (Equipment most recently inspected or tested): Piping circuit (external visual)

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures): 21-Jan-2018

Change Management Revision Date (The date of the most recent review or revision of management of change procedures): 12-Mar-2015

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review): 13-Sep-2017

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit): 13-Apr-2015

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit): 31-Oct-2018

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)): 23-Dec-2016

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans): 16-Feb-2018

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures): 15-Dec-2017

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures): 19-Feb-2018

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance): 25-Jan-2018

Confidential Business Information

CBI Claimed:

Section 8. Program Level 2

No records found.

Section 9. Emergency Response

Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?): Yes

Facility Plan (Does facility have its own written emergency response plan?): Yes

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?): Yes

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?): Yes

Healthcare (Does facility's ER plan include information on emergency health care?): Yes

Emergency Response Review

Review Date (Date of most recent review or update of facility's ER plan): 23-Sep-2016

Emergency Response Training

Training Date (Date of most recent review or update of facility's employees): 12-Feb-2018

Local Agency

Agency Name (Name of local agency with which the facility ER plan or response activities are coordinated): PORT NECHES FIRE DEPARTMENT

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated): (409) 722-5885

Subject to

OSHA Regulations at 29 CFR 1910.38: Yes

OSHA Regulations at 29 CFR 1910.120: Yes

Clean Water Regulations at 40 CFR 112: Yes

RCRA Regulations at CFR 264, 265, and 279.52: Yes

OPA 90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, or 30 CFR 254: Yes

State EPCRA Rules or Laws: Yes

Other (Specify):

Executive Summary

TPC Group, LLC - Port Neches Operations (PNO) EXECUTIVE SUMMARY

1. Accidental release prevention and emergency response policies. TPC Group is committed to providing a safe, healthy and environmentally conscious work place for its associates and neighbors. The PNO Plant maintains a working OSHA Process Safety Management (PSM) program, which implements a series of steps to prevent potential hazards associated with the process and assures a well-trained work force. The PSM program further implements its policies with onsite procedures and manuals. The EPA Risk Management Program (RMP) has been built upon this existing PSM program. The PNO Plant participates with the Jefferson County Local Emergency Planning Commission (LEPC) Sabine-Neches Chiefs Association and the Port Neches Fire Department in assisting local officials in the development of emergency response plans and participates in cooperative training with them. The facility complies with all applicable codes and standards regarding operating and equipment safety. TPC Group has participated in the past with the Responsible Care initiative and is committed to the responsible management of chemicals. The PNO Plant Manager, or his designee, is responsible for implementation of the Risk Management Program (RMP).

2. The stationary source and regulated substances handled. The PNO Plant is located at the corner of Highway 136 and Highway 366 in Port Neches, Texas. The site began production in 1943 and was acquired by Huntsman in 1994 then TPC Group, LLC in 2007. The site produces the primary end product butadiene. Butadiene is a monomer used in the production of butadiene rubber and various butadiene co-polymers.

The PNO Plant processes or stores volumes of a regulated flammable mixture containing the following: 1,3-butadiene, 1-butene, 2-methyl-1-butene, 2-methylpropene, 3-methyl-1-butene, 2-butene-cis, butane, ethane, isobutane, isopentane, methane, pentane, propane, propylene, propyne, 2-butene-trans, vinyl acetylene and ethyl acetylene. The only regulated toxic substance, in a quantity greater than the threshold amount, at the time of this submittal of the Risk Management Plan is chlorine.

The PNO stationary source is composed of two processes. They are identified as the Butadiene Process, which includes Receiving, Storage, and Transfer (RS&T), and the Steam, Power and Water (SP&W) process.

The Butadiene Process produces butadiene by extraction and distillation of crude butadiene purchased from various olefin plants. This process also produces a by-product stream (Raffinate-1). Receiving, Storage & Transfer (RS&T) consists of storage tanks, marine docks, and railcar facilities for, loading, unloading and storage of raw materials, intermediates, by-products and finished products.

The SP&W Process consists of utilities, including raw water treatment, steam boilers, wastewater treatment and cooling towers. The only part of the SP&W Process which is covered by PSM and RMP is that area which contains chlorine. Chlorine is stored in cylinders and utilized for water treatment.

3. General accidental release prevention program and chemical specific prevention steps. Following is a brief summary of the elements that the PNO Plant has implemented to comply with the accidental release prevention requirements outlined by the EPA in the RMP Rule, as well as, with the OSHA PSM standard.

Process Safety Information

The PNO Plant maintains a compilation of written process safety information. This includes information pertaining to hazards of regulated substances, the technology of the covered process and the equipment in the covered process.

Process Hazard Analysis (PHA)

The PNO Plant has performed initial process hazard analysis to comply with 29 CFR 1910.119(e) and these hazard analysis apply to processes covered by RMP. The PNO Plant utilizes the HAZOP methodology, a recognized and generally accepted method, for identifying, evaluating, and addressing hazards in the process. Employees are assigned to the HAZOP team who are knowledgeable in the HAZOP methodology and the specific process. The team develops recommendations to reduce the potential hazards which are further evaluated and implemented where beneficial. Recommendations are tracked until they are completed. The hazards imposed by hurricanes and inclement weather are minimally discussed during PHA's since this issue is well-covered by our Hurricane Preparedness Plan and Corporate Standards require designing equipment/structures to withstand high winds.

Operating Procedures

The PNO Plant maintains written operating procedures that were developed by operations, and provide clear instructions for safely operating covered processes. These operating procedures are available to all employees who work in the processes. The procedures are reviewed annually and modified whenever needed to accommodate operational and process changes.

Training

The PNO Plant provides initial training as well as refresher training to employees who operate the processes to assure that the required level of skills and knowledge are maintained. Training documentation provides records of when training was received and whether or not the training was understood. All operators receive periodic refresher training.

Mechanical Integrity

The PNO Plant has developed written procedures for maintaining the mechanical integrity of equipment in the covered processes, including pressure vessels, storage tanks, piping systems, relief and vent systems, emergency shutdown system controls, and pumps. The program is comprised of well-trained personnel who follow maintenance, testing and inspection procedures that ensure proper function of process equipment. This program includes the periodic inspection and testing of process equipment, as well as, the documentation of the results of these activities.

Management of Change

The PNO Plant has established and implemented written procedures to manage changes to process chemicals, technology, equipment, procedures, and any changes to the facility that affect a covered process. The procedures assure that, prior to any change, the following issues are considered: the technical basis for the proposed change, its impact on safety and health, any modifications to operating procedures, the necessary time period for the change, and any authorization requirements. Employees involved in operating a process, as well as maintenance and contract employees whose job will be affected, are informed of and trained in the change. If necessary, the process safety information and operating procedures are updated.

Pre-Startup Review

The PNO Plant performs pre-startup reviews for major changes in a process that require modification to process safety information.

Compliance Audit

The PNO Plant performs audits of its compliance with the provisions of 29CFR1910.119 (PSM) and 40 CFR part 68 (RMP). Audits are conducted every three years to verify that the procedures and practices developed are adequate and being followed. The findings of the audit team are reviewed and tracked until completed. Appropriate corrective actions are implemented.

Incident Investigation

The PNO Plant conducts an incident investigation for every incident that resulted in, or could reasonably have resulted in, a catastrophic release of a covered chemical. The investigation is promptly conducted. It is performed by a team consisting of persons with the appropriate knowledge and experience to thoroughly investigate and analyze the incident. A report is prepared at the conclusion of the incident investigation that addresses the incident, the factors that contributed to it, and recommendations resulting from the incident investigation. The recommendations are then tracked to completion.

Employee Participation

The PNO Plant has a written employee participation plan that allows input from employees on the development and analysis of process safety management. PHA's and all other RMP information is available to all employees.

Hot Work Permit

The PNO Plant has a procedure for the issuance of hot work permits for hot work conducted on or near a covered process (hot work generally involves electric or gas welding, cutting, brazing or similar spark-producing operations). If any hot work is performed near a covered process, a permit is issued that documents the fire prevention and protection requirements for the operation, the date authorized for hot work, and the object on which the work is performed.

Contractors

The PNO Plant has developed procedures for selecting and ensuring that contractors are competent and knowledgeable and can safely perform their work. The PNO Plant provides information to contractors about the hazards that may be present in the work area and has developed appropriate safe work practices. The safety performance and programs of the contractors are evaluated

annually by TPC Group as a part of their continued employment.

4. 5 Year Accident History. The PNO Plant has had no incidents in the last five years that have resulted in an offsite impact.

5. Emergency Response Program. TPC Group has a written emergency response program which encompasses the PNO Plant and contains procedures to be followed in the case of an accidental release of a hazardous chemical. These procedures include steps for informing the public, proper first aid and medical treatment, the proper use of emergency equipment and emergency response training for emergency response employees who perform emergency response duties and local emergency responders who may be called to assist in emergency response. The emergency response plan is reviewed annually and updated as necessary. Likewise the emergency response equipment is maintained, tested and inspected periodically. TPC Group is actively involved with informing local officials about hazardous substances stored and processed on site. TPC Group participates with the Jefferson County LEPC and the Port Neches Fire Department in assisting local officials in the development of emergency procedures to identify resources, chemicals, contacts and material safety data sheets for participating companies. The Safety Manager is the person to contact in the event of an emergency. The Emergency Response Coordinator for the plant is the designated alternate contact. Initial response will be provided by TPC Group on-site fire department.

6. Planned changes to improve safety. The PNO Plant continues to upgrade fire water monitors and adding emergency block valves at various locations throughout the plant. In addition, numerous projects are being considered as a result of recommendations from HAZOP studies, employee suggestions, incident investigations, and other continuous improvement efforts. There is an ongoing commitment to implement changes, when identified that will improve the safety and protection of associates and neighbors from accidental releases of hazardous chemicals.